

**Total Maximum Daily Loads:
The Last Mile in Water Quality Improvements for Florida**

As if cities did not have enough issues mounding on their plates, along comes another heap of mashed potatoes—implementation of longstanding water quality mandates in the form of Total Maximum Daily Loads (TMDLs). Simply put, a TMDL is the maximum amount of a pollutant that a water body can absorb and still be suitable for water supply, fishing and other designated uses.

It has been more than 30 years since enactment of the U.S. Clean Water Act, which initially targeted point sources of pollution using a permitting approach. While these effluent-based standards helped to improve ambient water quality substantially, by the 1980s it was clear that the nation needed to implement TMDLs in watersheds to go the last mile in eliminating impaired waters. Although Florida had taken steps to protect its outstanding waters and reduce pollutant loads, failure on the part of the U.S. Environmental Protection Agency (EPA) to enforce the comprehensive TMDL provisions led to a lawsuit brought against the agency by EarthJustice. Similar litigation took place in 37 other states (prompting one observer to conclude that TMDL actually stands for "Too Many Dadgum Lawyers"). EarthJustice and EPA Region 4 signed a consent decree in 1999 establishing a 13-year schedule to complete the TMDLs on Florida's list of impaired waters. That same year, the state legislature passed the Florida Watershed Restoration Act to create the authority for the state Department of Environmental Protection (DEP) to employ a scientific methodology to determine whether a water body was indeed "impaired." Further litigation by the Clean Water Network challenged the methodology for listing impaired waters—Florida's 2001 "Impaired Waters Rule"—but a lengthy decision by an administrative law judge upheld the state's listing process. In Florida, the most common causes of impairment are sediments, nutrients, pathogens, metals, especially mercury, and low dissolved oxygen.

DEP developed a statewide rotating basin schedule to fulfill this daunting task of figuring out how much pollution water bodies can handle before they reach "the scream" level, then

apportioning the maximum loads from the various sectors. Florida's 52 major watersheds are divided into 30 groups, five in each of the six DEP District Offices. In reality, separate TMDL determinations for various pollutants may be necessary for hundreds of different water body segments in Florida. The 30 divisions work such that the DEP Districts have about the same number of Group 1 through Group 5 basins each of which must undergo five phases from preliminary evaluation in the first phase to implementation in Phase 5. So throughout the state, all the Group 1 watershed basins, regardless of their location, will be roughly on the same schedule. More specifically, by September the state will submit to EPA the TMDLs for water bodies that are furthest along in the process—those in Group 1 (Ochlocknee-St. Marks Rivers, Suwannee River, Ocklawaha River, the Southwest Coast, Lake Okeechobee and Tampa Bay). That means that draft TMDLs are scheduled for completion early this summer.

Basins by Group and DEP District Office

DEP District	Group 1 Basins	Group 2 Basins	Group 3 Basins	Group 4 Basins	Group 5 Basins
NW	Ochlocknee-St. Marks	Apalachicola-Chuap	Choctawhatchee-St Andrews Bay	Perdido Bay	Perdido Bay
NE	Suwannee	Lower Suwannee		Upper Suwannee	Upper East Coast
Central	Ocklawaha	Middle Suwannee	Upper St. Johns	Indian River	Indian River Lagoon
SW	Tampa Bay	Tampa Bay	Sarasota Bay-Peace-Myakka	Indian River	Springs Coast
S	Everglades West Coast	Chapman Harbor	Caloosahatchee	Indian River	Florida Keys
SE	Lake Okeechobee	St. Johns River	Lake Worth Lagoon-Palm Beach Coast	Southwest Coast	Everglades

Each group will undergo a cycle of five phases on a rotating schedule:

Phase 1: Preliminary Evaluation of Water Quality

Phase 2: Strategic Monitoring and Assessment to verify water quality impairments

Phase 3: Development and Adoption of TMDLs for waters verified as impaired

Phase 4: Development of Basin Management Action Plan (BMAP) to achieve the TMDLs

Phase 5: Implementation of the BMAP and monitoring of results

**Basin Rotation Schedule
For TMDL Development and Implementation**

YEAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	0
Group 1	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5				
Group 2		PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5			
Group 3			PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5		
Group 4				PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	
Group 5					PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5

TMDLs will affect the amount of a pollutant that local governments, industry or agriculture can discharge into a compromised water body. The new requirements, while producing measurable water quality improvements, are likely to have significant fiscal and permitting impacts on many city and county governments.

The key juncture for local input will begin at the end of Phase 3 as each watershed group begins to develop its Basin Management Action Plan. The basin management plans are the nitty-gritty of the whole TMDL effort, since it is at this stage that local and regional government will have to come to terms with pollutant allocations across all sectors—wastewater point sources as well as urban and residential stormwater, agricultural operations, onsite sewage treatment, and even atmospheric deposition.

Besides its potentially huge cost, the TMDL program presents a host of other tricky aspects for local decision-makers, assuming legal challenges to data quality and sufficiency do not bog down the process. Among the challenges are bringing in line sectors such as septic tanks, as well as agriculture and silviculture. In the cases of farming and forestry, significant new programs to bring about wider adoption of Best Management Practices (BMPs) are being implemented for the first time. But the lack of specific permitting authority to enforce TMDLs in

these sectors may be problematic. Another difficulty involves coordinating the more open-ended approach that EPA is taking for some of the water bodies over which it will have jurisdiction to develop TMDLs. Unlike DEP's adherence to an implementation schedule for the TMDLs it develops, the federally derived TMDLs do not include precise plans for implementation.

City and county governments are advised to become familiar with the TMDL program. The best way to affect the program is for Commissioners and senior staff to be very involved as the process moves forward over the next year or two. Remember that for many local governments in Group 1, the impacts of the program will be felt before the end of 2003!

Commissioners may wish to consider referring the TMDL subject to staff for further review and analysis, with the idea of reporting back to the full council of your city.

The Florida Stormwater Association will be coordinating a series of training exercises on TMDLs over the next few months. More information can be found at www.florida-stormwater.org or by calling 888/221-3124. You can also go to DEP's TMDL site at www.dep.state.fl.us/water/tmdl/.

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